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Letter to Editor

Commentary on painful tonic spasms and brainstem involvement in a patient with neuromyelitis optica spectrum disorder

Dr Roman-Filip et al. [1], has provided an interesting description of the presence of Painful tonic spasms and brainstem involvement in a patient with neuromyelitis optica spectrum disorders (NMOsd). The painful paroxysmal tonic spasms (PPTS) are defined as a localized muscle spasms (in one or more limbs and/or trunk), recurrent, stereotyped accompanied by severe pain and dystonic posturing that usually last for 20–45 seconds [2]. These episodes may be classified according to the location of the lesion on magnetic resonance imaging (MRI) on brain/brainstem or spinal cord [2–6].

Initially was described in multiple sclerosis (MS) by Matthews in 1958 [2], has recently been published more frequently in neuromyelitis optica (NMO) [2–6]. The incidence varies from 3–98% [1–5] demyelinating myelopathy patients such as MS, NMO spectrum disorders (NMOsd) or idiopathic. Recently, a study found that the presence of PTSS after a first attack of acute myelitis had a specificity of 100% and sensitivity of 67% for NMOsd [7].

The pathophysiology of PPTS in subject with NMOsd is unclear. However, a number of mechanisms have been described in MS. An explanation based on anatomical location have been reported in patients with lesions in the spinal cord, contralateral cerebral peduncle, internal capsule and thalamus and they proposed that bilateral PPTS may result from lesions in the medulla oblongata (decussating of the pyramidal tract), spinal cord or both [2–6].

In our experience [6], in a recent study, we found the presence of PPTS in 26.66% (4 of 15) of NMOsd patients. However, PPTS frequency for longitudinally extensive transverse myelitis (LETM) group was 44.44% (4 of 9). Mean time between NMOsd diagnosis and PPTS onset was 7 months (range, 1–29 months) and mean time from last relapse of LETM was 30 days (range 23–40 days). In our series none patient with PPTS was associated with a new demyelinating brainstem episode but appears during recovery from the initial myelitis. Control over spasms and pain was achieved in all patients with carbamazepine (associated with gabapentin in one case). No favorable responses to pregabalin, gabapentin and phenytoin were reported.

Therefore, it is important to note that the PPTS affect quality of life, rehabilitation and daily life activities becoming a sign that we must think quickly, diagnose and treatment.

Conflict of interest

None declared.

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Ethics

The work described in this article has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans; Uniform Requirements for manuscripts submitted to Biomedical journals.

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